



STIC Search Report

EIC 1700

STIC Database Tracking Number: 212611

TO: Cathy Lam
Location: REM 5E81
Art Unit: 1775
January 11, 2007

Case Serial Number: 10/829479

From: Kendra Banks
Location: EIC 1700
REMSEN 4B28
Phone: 571/272-2516
Kendra.Banks@uspto.gov

Search Notes

No Cases Reported

US 6,376,052

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Cathy Lam Examiner #: 69755 Date: 01-11-07
Art Unit: 1775 Phone Number 302-1538 Serial Number: 101829,479
Mail Box and Bldg/Room Location: Rem 5 E 81 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): Motoo ASAI et al.

Earliest Priority Filing Date: 10-12-1998

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please do a litigation search for this case

and USPN 6376049 B1 & USPN 6376052 B1

Current session 11/01/2007**Query/Command : N**

..FILE / ..INFO / ..GUIDE

Query/Command : FILE PLUSPAT

QUESTEL - Time in minutes : 0,91
The cost estimation below is based on Questel's
standard price list

Estimated cost : 1.03 USD
Cost estimated for the last database search : 1.03 USD
Estimated total session cost : 1.03 USD

Selected file: PLUSPAT

PLUSPAT - (c) Questel-Orbit, All Rights Reserved.
Comprehensive Worldwide Patents database
Individual records for each Country or Patent Office
Coverage: 77 patenting authorities; start dates vary from 1800 forward
For PlusPat Fact Sheet, Pricing and FAQ, see the Questel.Orbit website
Citations and FI/F-term classification available for Japanese documents
Last update of file: 2007/01/10 (YYYY/MM/DD) 2007-01/UP (last update)

Search statement 1

Query/Command : US6376052/PN**** SS 1: Results 1**

Search statement 2

Query/Command : PRT FULL NONSTOP LEGALALL

1/1 PLUSPAT - ©QUESTEL-ORBIT - image

PN - US6376052 B1 20020423 [US6376052]

TI - (B1) Multilayer printed wiring board and its production process, resin composition for filling through-hole

PA - (B1) IBIDEN CO LTD (JP)

PA0 - Ibiden Company, Ltd., Gifu [JP]

IN - (B1) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP); SEGAWA HIROSHI (JP); SHIMADA KEN-ICHI (JP)

AP - US55686000 20000421 [2000US-0556860]

FD - C.I.P. of US341689

PR - JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]
JP6706598 19980317 [1998JP-0067065]

IC - (B1) B32B-003/00

ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]

ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]

EC - H05K-003/00R
H05K-003/46C1

ICO - T05K-003/00R
T05K-003/38C2
T05K-003/38C4

PCL - ORIGINAL (O) : 428209000; CROSS-REFERENCE (X) : 174255000
428901000

DT - Corresponding document

CT - US4816323; US5346750; US5766670; US6010768; JP63-66993; JP1-100996;
JP1-143292; JP2-196494; JP4-27194; JP4-92496; JP4-303937; JP5-110254;
JP5-198909; JP5-67670; JP5-243728; JP6-69648; JP6-76474; JP6-275959; JP6-
283860; JP6-302956; JP6-338218; JP7-162158; JP7-188391; JP7-283538; JP8-
83971; JP9-8424; JP9-116273; JP9-130050; JP9-181415; JP10-22611; JP63-
52112
English Language abstract of-JP-6-338218. (No Date).

English Language abstract of-7-188391. (No Date).

English Language abstract of-JP-7-283538. (No Date).

English Language abstract of-JP-9-130050. (No Date).

English Language abstract of-JP-6-283860. (No Date).

English Language abstract of-JP-5-110254. (No Date).

English language abstract of JP 6-275959. (No Date).

English language abstract of JP 6-302956. (No Date).

English language abstract of JP 5-67670. (No Date).

English language abstract of JP 4-303937. (No Date).

English language abstract of JP 63-52112. (No Date).

English language abstract of JP 6-76474. (No Date).

English language abstract of JP 5-198909. (No Date).

English language abstract of JP 7-162158. (No Date).

English language abstract of JP 1-100996. (No Date).

English language abstract of JP 8-83971. (No Date).

English language abstract of JP 9-181415. (No Date).

English language abstract of JP 9-8424. (No Date).

English language abstract of JP 2-196494. (No Date).

English language abstract of JP 1-143292. (No Date).

English language abstract of JP 4-92496. (No Date).

English language abstract of JP 5-243728. (No Date).

English Language Abstract of JP 63-66993. (No Date).

English Language Abstract of JP 4-27194. (No Date).

English Language Abstract of JP 10-22611. (No Date).

An English Language abstract of JP 6-69648. No Date.

English Language Abstract of JP 9-116273. No Date.

STG - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001

AB - A multilayer printed wiring board is composed of a substrate provided with through-holes, and a wiring board formed on the substrate through the interposition of an interlaminar insulating resin layer, the through-holes having a roughened internal surface and being filled with a filler, an exposed part of the filler in the through-holes being covered with a through-hole-covering conductor layer, and a viahole formed just thereabove being connected to the through-hole-covering conductor layer. Without peeling between the through-holes and the filler, this wiring board has a satisfactory connection reliability between the through-holes and the internal layer circuit and provides a high density wiring.

UP - 2002-18

1/1 LGST - ©EPO

PN - US6376052 B1 20020423 [US6376052]
AP - US55686000 20000421 [2000US-0556860]

ACT - 20000814 US/AS-A
ASSIGNMENT
OWNER: IBIDEN CO., LTD. 1, KANDA-CHO 2-CHOME, OGAKI-SHI G;
EFFECTIVE DATE: 20000717

ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:ASAI,
MOTOO;SHIMADA, KENICHI;NODA, KOUTA;AND
OTHERS;REEL/FRAME:011046/0152

20030121 US/CC-A
CERTIFICATE OF CORRECTION

UP - 2004-30

1/1 CRXX - ©CLAIMS/RRX

PN - 6,376,052 A 20020423 [US6376052]

PA - Ibiden Co Ltd JP

ACT - 20030211 CERTIFICATE OF CORRECTION

Search statement 2

Query/Command : FILE INPADOC

LGST - Time in minutes : 0,03
The cost estimation below is based on Questel's
standard price list

Estimated cost : 0.03 USD
Records displayed and billed : 1
Estimated cost : 0.70 USD
Cost estimated for the last database search : 0.73 USD
Estimated total session cost : 1.76 USD

CRXX - Time in minutes : 0,02
The cost estimation below is based on Questel's
standard price list

Estimated cost : 0.03 USD
Records displayed and billed : 1
Estimated cost : 6.00 USD
Cost estimated for the last database search : 6.03 USD
Estimated total session cost : 7.79 USD

LITA - Time in minutes : 0,01
The cost estimation below is based on Questel's
standard price list

Estimated cost : 0.02 USD
Cost estimated for the last database search : 0.02 USD
Estimated total session cost : 7.81 USD

PLUSPAT - Time in minutes : 0,28
The cost estimation below is based on Questel's
standard price list

Estimated cost : 0.81 USD
Records displayed and billed : 1
Estimated cost : 1.55 USD
Cost estimated for the last database search : 2.36 USD
Estimated total session cost : 10.17 USD

Selected file: PLUSPAT

PLUSPAT - (c) Questel-Orbit, All Rights Reserved.
Comprehensive Worldwide Patents database
Individual records for each Country or Patent Office
Coverage: 77 patenting authorities; start dates vary from 1800 forward
For PlusPat Fact Sheet, Pricing and FAQ, see the Questel.Orbit website
Citations and FI/F-term classification available for Japanese documents
Last update of file: 2007/01/10 (YYYY/MM/DD) 2007-01/UP (last update)

Search statement 2

Query/Command : FAM US6376052/PN

1 Patent Groups

** SS 2: Results 16

Search statement 3

Query/Command : FAMSTATE NONSTOP

1/16 PLUSPAT - ©QUESTEL-ORBIT

PN - CN1474642 A 20040211 [CN1474642]
STG - (A) Unexamined application
TI - (A) Multilayer printed circuit board and its producing method, filling resin composition for through hole
PA - (A) SEGAI ELECTRIC CO LTD (JP)
IN - (A) HIROTA NODA (JP); KENICHI SHIMADA (JP); MOTOO ASAII (JP)
IC - (A) H05K-001/14
PN2 - CN1237852 C 20060118 [CN1237852C]
STG2 - (C) Granted patent
TI2 - (C) Multilayer printed circuit board and its producing method, resin composition for filling through hole
PA2 - (C) SEGAI ELECTRIC CO LTD (JP)
IN2 - (C) HIROTA ASAII MOTOO SHIMADA KENI (JP)
IC2 - (C) H05K-001/14 H05K-003/00 H05K-003/38 H05K-003/46
AP - CN02148010 19981012 [2002CN-0148010]
PR - JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]
JP6706598 19980317 [1998JP-0067065]
ICAA - H05K-001/14 [2006-01 A F I B H CN]; H05K-003/00 [2006-01 A - I R M EP];
H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]

ICCA - H05K-001/14 [2006 C L I B H CN]; H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]
UP - 2005-09

2/16 PLUSPAT - ©QUESTEL-ORBIT

PN - CN1592554 A 20050309 [CN1592554]
STG - (A) Unexamined application
TI - (A) Multilayer printed circuit board and its producing method, filling resin composition for through hole
PA - (A) SEGAI ELECTRIC CO LTD (JP)
IN - (A) NODA HIROTA (JP); ASAI MOTO (JP); SHIMADA KENICHI (JP)
IC - (A) H05K-003/00 H05K-003/46
AP - CN200410057893 19981012 [2004CN-0057893]
PR - JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]
JP6706598 19980317 [1998JP-0067065]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]
UP - 2005-23

3/16 PLUSPAT - ©QUESTEL-ORBIT

PN - CN1272298 A 20001101 [CN1272298]
STG - (A) Unexamined application
TI - (A) Multilayer printed wiring board and its manufacturing method, and resin composition for filling through-hole
PA - (A) IBIDEN CO LTD (JP)
IN - (A) KENICHI SHIMADA (JP); KOUTA NODA (JP); MOTO (JP); ASAI (JP)
IC - (A) H05K-003/46
PN2 - CN1181717 C 20041222 [CN1181717C]
STG2 - (C) Granted patent
TI2 - (C) Multilayer printed wiring board and its manufacturing method, and resin composition for filling through-hole
PA2 - (C) IBIDEN CO LTD (JP)
IN2 - (C) KENICHI SHIMADA (JP); KOUTA NODA (JP); MOTO (JP); ASAI (JP)
IC2 - (C) H05K-003/46
AP - CN98809583 19981012 [1998CN-0809583]
PR - JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]

JP6706598 19980317 [1998JP-0067065]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]
UP - 2005-08

4/16 *PLUSPAT - ©QUESTEL-ORBIT - image*

PN - EP1030544 A1 20000823 [EP1030544]
STG - (A1) Public. Of applic. With search report
TI - (A1) MULTILAYER PRINTED WIRING BOARD AND ITS
MANUFACTURING METHOD, AND RESIN COMPOSITION FOR FILLING
THROUGH-HOLE
OTI - (A1) MEHRSCHEIDIGE GEDRUCKTE LEITERPLATTE, VERFAHREN
ZU DEREN HERSTELLUNG, UND HARZZUSAMMENSETZUNG ZUM
FÜLLEN VON KONTAKTLCHERN
(A1) PLAQUETTE A CIRCUIT IMPRIME MULTICOUCHE, SON PROCEDE
DE FABRICATION ET COMPOSITION RESINEUSE DE REMPLISSAGE
DE TROUS TRAVERSANTS
PA - (A1) IBIDEN CO LTD (JP)
IN - (A1) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP);
SEGAWA HIROSHI (JP); SHIMADA KENICHI (JP)
IC - (A1) H05K-003/46
PN2 - EP1030544 A4 20060308 [EP1030544]
STG2 - (A4) Publ. Of suppl. search report
TI2 - (A4) MULTILAYER PRINTED WIRING BOARD AND ITS
MANUFACTURING METHOD, AND RESIN COMPOSITION FOR FILLING
THROUGH-HOLE
OTI2 - (A4) MEHRSCHEIDIGE GEDRUCKTE LEITERPLATTE, VERFAHREN
ZU DEREN HERSTELLUNG, UND HARZZUSAMMENSETZUNG ZUM
FÜLLEN VON KONTAKTLCHERN
(A4) PLAQUETTE A CIRCUIT IMPRIME MULTICOUCHE, SON PROCEDE
DE FABRICATION ET COMPOSITION RESINEUSE DE REMPLISSAGE
DE TROUS TRAVERSANTS
PA2 - (A4) IBIDEN CO LTD (JP)
IN2 - (A4) ASAI MOTO (JP); SHIMADA KENICHI (JP); NODA KOUTA (JP);
KARIYA TAKASHI (JP); SEGAWA HIROSHI (JP)
IC2 - (A4) H05K-003/00 H05K-003/38 H05K-003/46
LA - ENGLISH (ENG)
AP - EP98947819 19981012 [1998EP-0947819]
PR - WOJP9804584 19981012 [1998WO-JP04584]
JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]
JP6706598 19980317 [1998JP-0067065]

ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]
EC - H05K-003/00R
H05K-003/46C1
ICO - T05K-003/00R
T05K-003/38C2
T05K-003/38C4
DS - DE FI GB NL
DT - Basic (replaces original non EP official language basic.)
UP - 2000-31

1/1 LEGALI - ©EPO

PN - EP1030544 A1 20000823 [EP1030544]EP1030544 A4 20060308 [EP1030544]
AP - EP98947819 19981012 [1998EP-0947819]
ACTE - 20000823 EP/AK-A [+]
DESIGNATED CONTRACTING STATES:
DE FI GB NL

20000823 EP/17P-A [+]
REQUEST FOR EXAMINATION FILED
EFFECTIVE DATE: 20000511

20060308 EP/A4-A [+]
SUPPLEMENTARY SEARCH REPORT
EFFECTIVE DATE: 20060125

20061108 EP/17Q-A [+]
FIRST EXAMINATION REPORT
EFFECTIVE DATE: 20061010
UP - 2006-45

5/16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - EP1286578 A2 20030226 [EP1286578]
STG - (A2) Pub. Of applic. Without search report
TI - (A2) Multilayer printed wiring board and its manufacturing method, and resin composition for filling through-hole
OTI - (A2) Mehrschichtige gedruckte Leiterplatte und Verfahren zu deren Herstellung, und Harzzusammensetzung zum Füllen von Kontaktlöchern
(A2) Plaque à circuit imprimé multicouche et son procédé de fabrication, et composition résineuse de remplissage de trous traversants
PA - (A2) IBIDEN CO LTD (JP)
PA0 - Ividen Co., Ltd.; 1, Kandacho 2-chome; Ogaki-shi, Gifu 503-0917 (JP)
IN - (A2) ASAI MOTO (JP); SHIMADA KENICHI (JP); NODA KOUTA (JP);

KAYRIYA TAKASHI (JP); SEGAWA HIROSHI (JP)

IC - (A2) H05K-003/46

PN2 - EP1286578 A3 20060322 [EP1286578]

STG2 - (A3) Publi. Of search report

TI2 - (A3) Multilayer printed wiring board and its manufacturing method, and resin composition for filling through-hole

OTI2 - (A3) Mehrschichtige gedruckte Leiterplatte und Verfahren zu deren Herstellung, und Harzzusammensetzung zum Füllen von Kontaktlöchern
(A3) Plaque à circuit imprimé multicouche et son procédé de fabrication, et composition résineuse de remplissage de trous traversants

PA2 - (A3) IBIDEN CO LTD (JP)

IN2 - (A3) ASAI MOTO (JP); SHIMADA KENICHI (JP); NODA KOUTA (JP); KAYRIYA TAKASHI (JP); SEGAWA HIROSHI (JP)

IC2 - (A3) H05K-003/00 H05K-003/38 H05K-003/46

LA - ENGLISH (ENG)

AP - EP02026472 19981012 [2002EP-0026472]

PR - EP98947819 19981012 [1998EP-0947819]
JP6706598 19980317 [1998JP-0067065]
JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]

ICAA - H05K-003/46 [2006-01 A F I B H EP]
H05K-003/00 [2006-01 A - N R M EP]; H05K-003/38 [2006-01 A - N R M EP]

ICCA - H05K-003/46 [2006 C L I B H EP]
H05K-003/00 [2006 C - N R M EP]; H05K-003/38 [2006 C - N R M EP]

EC - H05K-003/00R

DS - DE FI GB NL

DT - Basic

UP - 2003-09

1/1 LEGALI - ©EPO

PN - EP1286578 A2 20030226 [EP1286578]EP1286578 A3 20060322 [EP1286578]

AP - EP02026472 19981012 [2002EP-0026472]

ACTE - 20030226 EP/AC-A
DIVISIONAL APPLICATION (ART. 76) OF:
(EP 1030544 [EP1030544])

20030226 EP/AK-A [+]
DESIGNATED CONTRACTING STATES:
DE FI GB NL

20030312 EP/17P-A [+]
REQUEST FOR EXAMINATION FILED
EFFECTIVE DATE: 20030108

20060322 EP/AK-A [+]
DESIGNATED CONTRACTING STATES:
DE FI GB NL

20061129 EP/AKX-A [+]
PAYMENT OF DESIGNATION FEES
DE FI GB NL

UP - 2006-48

6/16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - JP2004200720 A 20040715 [JP2004200720]
STG - (A) Doc. Laid open to publ. Inspec.
TI - (A) MULTILAYER PRINTED BOARD AND METHOD OF
MANUFACTURING THE SAME
PA - (A) IBIDEN CO LTD
PA0 - (A) IBIDEN CO LTD
IN - (A) NODA KOTA; ASAI MOTO; SHIMADA KENICHI
IC - (A) H05K-001/11 H05K-003/40 H05K-003/46
AP - JP2004072926 20040315 [2004JP-0072926]
PR - JP2004072926 20040315 [2004JP-0072926]
JP28049997 19971014 [1997JP-0280499]
ICAA - H05K-001/11 [2006-01 A - I R M EP]; H05K-003/40 [2006-01 A - I R M EP];
H05K-003/46 [2006-01 A - I R M EP]
ICCA - H05K-001/11 [2006 C - I R M EP]; H05K-003/40 [2006 C - I R M EP]; H05K-
003/46 [2006 C - I R M EP]
FI - H05K1/11 H; H05K3/40 D; H05K3/46 N; H05K3/46 B
FTM - 5E317 AA24; 5E317 BB01; 5E317 BB11; 5E317 CD05; 5E317 CD23; 5E317
CC51; 5E317 CC31; 5E317 CD27; 5E317 GG05; 5E317 CD32; 5E346 DD32;
5E346 DD48; 5E346 EE38; 5E346 FF02; 5E346 FF04; 5E346 GG15; 5E346
GG16; 5E346 CC08; 5E346 CC02; 5E346 BB16; 5E346 BB01; 5E346 AA43;
5E346 AA32; 5E346 AA15; 5E346 AA12; 5E346 AA06; 5E346 DD01; 5E346
CC58; 5E346 CC55; 5E346 CC32; 5E346 DD22; 5E346 GG17; 5E346 GG22;
5E346 GG23; 5E346 GG27; 5E346 HH07; 5E346 HH11
UP - 2004-33

7/16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - JP11186728 A 19990709 [JP11186728]
STG - (A) Doc. Laid open to publ. Inspec.
TI - (A) MULTILAYERED PRINTED WIRING BOARD
PA - (A) IBIDEN CO LTD
PA0 - (A) IBIDEN CO LTD
IN - (A) NODA KOTA; ASAI MOTO; SHIMADA KENICHI
IC - (A) H05K-003/38 H05K-003/42 H05K-003/46
AP - JP34018097 19971210 [1997JP-0340180]

PR - JP34018097 19971210 [1997JP-0340180]
 JP28049997 19971014 [1997JP-0280499]
ICAA - H05K-003/38 [2006-01 A - I R M EP]; H05K-003/42 [2006-01 A - I R M EP];
 H05K-003/46 [2006-01 A - I R M EP]
ICCA - H05K-003/38 [2006 C - I R M EP]; H05K-003/42 [2006 C - I R M EP]; H05K-
 003/46 [2006 C - I R M EP]
FI - H05K3/42 610C; H05K3/38 B; H05K3/46 N
FTM - 5E317 AA24; 5E317 BB01; 5E317 BB12; 5E317 CC25; 5E317 CC32; 5E317
 CC33; 5E317 CD05; 5E317 CD27; 5E317 CD32; 5E317 GG03; 5E317 GG14;
 5E343 AA07; 5E343 AA12; 5E343 AA15; 5E343 AA16; 5E343 BB17; 5E343
 BB24; 5E343 BB67; 5E343 BB71; 5E343 CC33; 5E343 CC46; 5E343 CC61;
 5E343 DD33; 5E343 DD43; 5E343 DD76; 5E343 DD80; 5E343 EE17; 5E343
 EE33; 5E343 EE53; 5E343 EE55; 5E343 ER02; 5E343 ER11; 5E343 GG04;
 5E346 AA02; 5E346 AA06; 5E346 AA12; 5E346 AA15; 5E346 AA16; 5E346
 AA43; 5E346 BB01; 5E346 CC04; 5E346 CC08; 5E346 CC16; 5E346 CC41;
 5E346 CC43; 5E346 CC51; 5E346 CC57; 5E346 CC60; 5E346 DD02; 5E346
 DD03; 5E346 DD25; 5E346 DD32; 5E346 DD47; 5E346 DD48; 5E346 EE33;
 5E346 EE38; 5E346 FF04; 5E346 FF18; 5E346 GG15; 5E346 GG17; 5E346
 GG19; 5E346 GG22; 5E346 GG23; 5E346 GG27; 5E346 GG28; 5E346 HH07;
 5E346 HH11; 5E346 HH25

8/16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - JP11186729 A 19990709 [JP11186729]
STG - (A) Doc. Laid open to publ. Inspec.
TI - (A) MULTILAYERED PRINTED WIRING BOARD
PA - (A) IBIDEN CO LTD
PA0 - (A) IBIDEN CO LTD
IN - (A) NODA KOTA; ASAI MOTOQ; SHIMADA KENICHI
IC - (A) H05K-003/38 H05K-003/42 H05K-003/46
AP - JP34018197 19971210 [1997JP-0340181]
PR - JP34018197 19971210 [1997JP-0340181]
 JP28049997 19971014 [1997JP-0280499]
ICAA - H05K-003/38 [2006-01 A - I R M EP]; H05K-003/42 [2006-01 A - I R M EP];
 H05K-003/46 [2006-01 A - I R M EP]
ICCA - H05K-003/38 [2006 C - I R M EP]; H05K-003/42 [2006 C - I R M EP]; H05K-
 003/46 [2006 C - I R M EP]
FI - H05K3/42 610C; H05K3/38 B; H05K3/46 N; H05K3/46 T
FTM - 5E317 AA24; 5E317 BB01; 5E317 BB12; 5E317 CC25; 5E317 CC32; 5E317
 CC33; 5E317 CD17; 5E317 CD27; 5E317 CD32; 5E317 GG03; 5E317 GG14;
 5E343 AA02; 5E343 AA07; 5E343 AA12; 5E343 AA22; 5E343 BB24; 5E343
 BB67; 5E343 BB71; 5E343 CC33; 5E343 CC46; 5E343 CC61; 5E343 CC73;
 5E343 CC76; 5E343 DD33; 5E343 DD43; 5E343 DD76; 5E343 DD80; 5E343
 EE53; 5E343 ER02; 5E343 GG04; 5E346 AA02; 5E346 AA06; 5E346 AA12;
 5E346 AA15; 5E346 AA43; 5E346 BB01; 5E346 CC04; 5E346 CC08; 5E346
 CC09; 5E346 CC16; 5E346 CC32; 5E346 CC51; 5E346 CC60; 5E346 DD25;
 5E346 DD32; 5E346 DD33; 5E346 DD47; 5E346 DD48; 5E346 EE33; 5E346

EE38; 5E346 FF04; 5E346 FF15; 5E346 GG15; 5E346 GG17; 5E346 GG19;
5E346 GG22; 5E346 GG23; 5E346 GG27; 5E346 GG28; 5E346 HH07; 5E346
HH11; 5E346 HH25

9/16. PLUSPAT - ©QUESTEL-ORBIT - image

PN - JP11186730 A 19990709 [JP11186730]
STG - (A) Doc. Laid open to publ. Inspec.
TI - (A) MULTILAYERED PRINTED WIRING BOARD AND MANUFACTURE
THEREOF
PA - (A) IBIDEN CO LTD
PA0 - (A) IBIDEN CO LTD
IN - (A) NODA KOTA; ASAI MOTO; SHIMADA KENICHI
IC - (A) H05K-003/38 H05K-003/42 H05K-003/46
PN2 - JP3564981 B2 20040915 [JP3564981]
STG2 - (B2) Grant. Pat. With A from 2500000 on
IC2 - (B2) H05K-003/38 H05K-003/42 H05K-003/46
AP - JP34018297 19971210 [1997JP-0340182]
PR - JP34018297 19971210 [1997JP-0340182]
JP28049997 19971014 [1997JP-0280499]
ICAA - H05K-003/38 [2006-01 A - I R M EP]; H05K-003/42 [2006-01 A - I R M EP];
H05K-003/46 [2006-01 A - I R M EP]
ICCA - H05K-003/38 [2006 C - I R M EP]; H05K-003/42 [2006 C - I R M EP]; H05K-
003/46 [2006 C - I R M EP]
FI - H05K3/42 610C; H05K3/38 B; H05K3/46 N
FTM - 5E317 AA24; 5E317 BB02; 5E317 BB03; 5E317 BB05; 5E317 BB12; 5E317
BB22; 5E317 CC22; 5E317 CC25; 5E317 CC32; 5E317 CC33; 5E317 CC53;
5E317 CD05; 5E317 CD12; 5E317 CD15; 5E317 CD18; 5E317 CD25; 5E317
CD32; 5E317 GG05; 5E317 GG14; 5E317 GG20; 5E343 AA02; 5E343 AA15;
5E343 AA17; 5E343 AA18; 5E343 AA19; 5E343 AA22; 5E343 BB24; 5E343
CC25; 5E343 CC34; 5E343 CC45; 5E343 CC52; 5E343 CC62; 5E343 CC67;
5E343 CC72; 5E343 DD03; 5E343 DD44; 5E343 EE33; 5E343 EE39; 5E343
EE52; 5E343 ER07; 5E343 FF23; 5E343 FF30; 5E343 GG04; 5E343 GG08;
5E343 GG20; 5E346 AA02; 5E346 AA03; 5E346 AA04; 5E346 AA12; 5E346
AA15; 5E346 AA26; 5E346 AA35; 5E346 AA43; 5E346 AA53; 5E346 CC04;
5E346 CC06; 5E346 CC09; 5E346 CC10; 5E346 CC14; 5E346 CC32; 5E346
CC54; 5E346 CC55; 5E346 DD03; 5E346 DD25; 5E346 DD33; 5E346 EE32;
5E346 FF04; 5E346 FF07; 5E346 FF15; 5E346 GG06; 5E346 GG22; 5E346
GG23; 5E346 GG27; 5E346 HH18; 5E346 HH26; 5E346 HH40

10/16 PLUSPAT - ©QUESTEL-ORBIT

PN - JP11266078 A 19990928 [JP11266078]
STG - (A) Doc. Laid open to publ. Inspec.
TI - (A) THROUGH-HOLE FILLING RESIN COMPOSITION AND
MULTILAYER PRINTED WIRING BOARD

PA - (A) IBIDEN CO LTD
PA0 - (A) IBIDEN CO LTD
IN - (A) ASAI MOTO; SHIMADA KENICHI
IC - (A) H05K-003/42 H05K-003/46
PN2 - JP3408417 B2 20030519 [JP3408417]
STG2 - (B2) Grant. Pat. With A from 2500000 on
IC2 - (B2) H05K-003/42 H05K-003/46
AP - JP6706598 19980317 [1998JP-0067065]
PR - JP6706598 19980317 [1998JP-0067065]
ICAA - H05K-003/42 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
ICCA - H05K-003/42 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
FI - H05K3/42 610C; H05K3/46 N; H05K3/46 S; H05K3/46 B
FTM - 5E317 AA24; 5E317 CC25; 5E346 AA43; 5E346 EE31; 5E346 FF18

11/16 PLUSPAT - ©QUESTEL-ORBIT

PN - TW249979 B 20060221 [TW-249979]
STG - (B) Patent
TI - (B) Multilayer printed wiring board and its production process, resin composition for filling through-hole
PA - (B) IBIDEN CO LTD (JP)
IN - (B) ASAI MOTO (JP); SHIMADA KENICHI (JP); NODA KOUTA (JP); KARIYA TAKASHI (JP); SEGAWA HIROSHI (JP)
IC - (B) H05K-003/00 H05K-003/38 H05K-003/46
AP - TW91124369 19981014 [2002TW-0124369]
PR - JP6706598 19980317 [1998JP-0067065]
JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]
EC - H05K-003/00R
H05K-003/46C1
ICO - T05K-003/00R
T05K-003/38C2
T05K-003/38C4
T05K-003/38C6
UP - 2006-47

12/16 PLUSPAT - ©QUESTEL-ORBIT

PN - TW443084 B 20010623 [TW-443084]
STG - (B) Patent

TI - (B) Multi-layer printed circuit board and its fabricating method, composition material of resin used for filling through hole
PA - (B) IBIDEN CO LTD (JP)
IN - (B) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP); SEGAWA HIROSHI (JP); SHIMADA KENICHI (JP)
IC - (B) H05K-003/46
AP - TW89114870 19981014 [2000TW-0114870]
PR - JP6706598 19980317 [1998JP-0067065]
 JP28049997 19971014 [1997JP-0280499]
 JP34018097 19971210 [1997JP-0340180]
 JP34018297 19971210 [1997JP-0340182]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
 H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
 H05K-003/38 [2006 C - N R M EP]
UP - 2002-03

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PN - TW443084 B 20010623 [TW-443084]
AP - TW89114870 19981014 [2000TW-0114870]
ACTE - 20011012 TW/GD4A-A [+]
 ISSUE OF PATENT CERTIFICATE FOR GRANTED INVENTION PATENT
UP - 2004-28

13/16 *PLUSPAT - ©QUESTEL-ORBIT*

PN - TW520629 B.20030211 [TW-520629]
STG - (B) Patent
TI - (B) Multi-layer printed circuit board and its manufacturing method, and resin composition for filling through-hole
PA - (B) IBIDEN CO LTD (JP)
IN - (B) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP); SEGAWA HIROSHI (JP); SHIMADA KENICHI (JP)
IC - (B) H05K-003/46
AP - TW87117076 19981014 [1998TW-0117076]
PR - JP28049997 19971014 [1997JP-0280499]
 JP34018097 19971210 [1997JP-0340180]
 JP34018297 19971210 [1997JP-0340182]
 JP6706598 19980317 [1998JP-0067065]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
 H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
 H05K-003/38 [2006 C - N R M EP]
UP - 2003-40

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PN - TW520629 B 20030211 [TW-520629]
AP - TW87117076 19981014 [1998TW-0117076]
ACTE - 20030609 TW/GD4A-A [+]
 ISSUE OF PATENT CERTIFICATE FOR GRANTED INVENTION PATENT
UP - 2004-28

14/16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - US6376049 B1 20020423 [US6376049]
STG - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001
TI - (B1) Multilayer printed wiring board and its manufacturing method, and resin composition for filling through-hole
PA - (B1) IBIDEN CO LTD (JP)
PA0 - Ibiden Company, Ltd., Gifu [JP]
IN - (B1) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP); SEGAWA HIROSHI (JP); SHIMADA KENICHI (JP)
IC - (B1) B32B-003/00
AP - US34168999 19990723 [1999US-0341689]
PR - JP28049997 19971014 [1997JP-0280499]
 JP34018097 19971210 [1997JP-0340180]
 JP34018297 19971210 [1997JP-0340182]
 JP6706598 19980317 [1998JP-0067065]
 WOJP9804584 19981012 [1998WO-JP04584]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
 H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
 H05K-003/38 [2006 C - N R M EP]
EC - H05K-003/00R
 H05K-003/46C1
ICO - T05K-003/00R
 T05K-003/38C2
 T05K-003/38C4
PCL - ORIGINAL (O) : 428209000; CROSS-REFERENCE (X) : 174250000
 174257000 205126000 427096900 427097200 427097900 427098100
 427098800
DT - Corresponding document
UP - 2002-18

1/1 LEGALI - ©EPO

PN - US6376049 B1 20020423 [US6376049]
AP - US34168999 19990723 [1999US-0341689]
ACTE - 20030318 US/CC-A
 CERTIFICATE OF CORRECTION

20040928 US/RF-A
REISSUE APPLICATION FILED
EFFECTIVE DATE: 20040422

UP - 2004-41

15 / 16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - US6376052 B1 20020423 [US6376052]
STG - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001
TI - (B1) Multilayer printed wiring board and its production process, resin composition for filling through-hole
PA - (B1) IBIDEN CO LTD (JP)
PA0 - Ibiden Company, Ltd., Gifu [JP]
IN - (B1) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP); SEGAWA HIROSHI (JP); SHIMADA KEN-ICHI (JP)
IC - (B1) B32B-003/00
AP - US55686000 20000421 [2000US-0556860]
PR - JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]
JP6706598 19980317 [1998JP-0067065]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]
EC - H05K-003/00R
H05K-003/46C1
ICO - T05K-003/00R
T05K-003/38C2
T05K-003/38C4
PCL - ORIGINAL (O) : 428209000; CROSS-REFERENCE (X) : 174255000
428901000
DT - Corresponding document
UP - 2002-18

1 / 1 LEGALI - ©EPO

PN - US6376052 B1 20020423 [US6376052]
AP - US55686000 20000421 [2000US-0556860]
ACTE - 20000814 US/AS-A
ASSIGNMENT
OWNER: IBIDEN CO., LTD. 1, KANDA-CHO 2-CHOME, OGAKI-SHI G;
EFFECTIVE DATE: 20000717
ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:ASAI,
MOTO (JP);SHIMADA, KENICHI;NODA, KOUTA;AND

OTHERS;REEL/FRAME:011046/0152

20030121 US/CC-A
CERTIFICATE OF CORRECTION

UP - 2004-30

16/16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - WO9920090 A1 19990422 [WO9920090]
STG - (A1) Publ. Of int. Appl. With int. Search rep
TI - (A1) MULTILAYER PRINTED WIRING BOARD AND ITS MANUFACTURING METHOD, AND RESIN COMPOSITION FOR FILLING THROUGH-HOLE
OTI - (A1) PLAQUETTE A CIRCUIT IMPRIME MULTICOUCHE, SON PROCEDE DE FABRICATION ET COMPOSITION RESINEUSE DE REMPLISSAGE DE TROUS TRAVERSANTS
PA - (A1) IBIDEN CO LTD (JP); ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP); SEGAWA HIROSHI (JP); SHIMADA KENICHI (JP)
PA0 - IBIDEN CO., LTD. ; 1, Kanda-cho 2-chome Ogaki-shi Gifu 503-0917 (JP) (except US)
ASAI, Moto ; Ibiden Co., Ltd. 1-1, Kitakata Ibigawa-cho Ibi-gun Gifu 501-0601 (JP) (only US)
SHIMADA, Kenichi ; Ibiden Co., Ltd. 1-1, Kitakata Ibigawa-cho Ibi-gun Gifu 501-0601 (JP) (only US)
NODA, Kouta ; Ibiden Co., Ltd. 1-1, Kitakata Ibigawa-cho Ibi-gun Gifu 501-0601 (JP) (only US)
KARIYA, Takashi ; Ibiden Co., Ltd. 1-1, Kitakata Ibigawa-cho Ibi-gun Gifu 501-0601 (JP) (only US)
SEGAWA, Hiroshi ; Ibiden Co., Ltd. 1-1, Kitakata Ibigawa-cho Ibi-gun Gifu 501-0601 (JP) (only US)
IN - (A1) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP); SEGAWA HIROSHI (JP); SHIMADA KENICHI (JP)
IC - (A1) H05K-003/46
LA - JAPANESE (JPN)
AP - WOJP9804584 19981012 [1998WO-JP04584]
PR - JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]
JP6706598 19980317 [1998JP-0067065]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]
EC - H05K-003/00R
ICO - T05K-003/00R
T05K-003/38C2
DS - CN; KR; SG; US; European Patent (AT; BE; CH; CY; DE; DK; ES; FI; FR; GB;

GR; IE; IT; LU; MC; NL; PT; SE)

DT - Basic

1/1 *LEGALI - ©EPO*

PN - WO9920090 A1 19990422 [WO9920090]

AP - WOJP9804584 19981012 [1998WO-JP04584]

ACTE - 19990422 WO/AK [+]

DESIGNATED STATES CITED IN A PUBLISHED APPLICATION WITH

SEARCH REPORT

CN KR SG US

19990422 WO/AL [+]

DESIGNATED COUNTRIES FOR REGIONAL PATENTS CITED IN A
PUBLISHED APPLICATION WITH SEARCH REPORT

AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

19990520 WO/DFPE

REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO
EXPIRATION OF 19TH MONTH FROM PRIORITY DATE

19990623 WO/121

EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS
DESIGNATED IN THIS APPLICATION

19990723 WO/ENP

ENTRY INTO THE NATIONAL PHASE IN:

US 1999 341689A 19990723 [1999US-0341689]

20000403 WO/ENP

ENTRY INTO THE NATIONAL PHASE IN:

KR 2000 2000703594A [2000KR-0703594]

UP - 2003-22

Search statement 3

PATNO IS 6376052

DATE: JANUARY 11, 2007
LIBRARY: PATENT
FILE: ALL

Your search request is:
PATNO IS 6376052

Number of PATENTS found with your search request through:
LEVEL 1... 1

Your search request has found 1 PATENT through Level 1.
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To MODIFY your search request, press the M key (for MODFY) and then the ENTER key.

For further explanation, press the H key (for HELP) and then the ENTER key.

LEVEL 1 - 1 PATENT

1. 6376052 , April 23, 2002 , Multilayer printed wiring board and its production process, resin composition for filling through-hole, Asai, Motoo - Ibi-gun, Japan (JP); Shimada, Ken-ichi - Ibi-gun, Japan (JP); Noda, Kouta - Ibi-gun, Japan (JP); Kariya, Takashi - Ibi-gun, Japan (JP); Segawa, Hiroshi - Ibi-gun, Japan (JP), 556860 (09), August 14, 2000 - ASSIGNMENT OF ASSIGNEES INTEREST (SEE DOCUMENT FOR DETAILS) ., IBIDEN CO., LTD. 1, KANDA-CHO 2-CHOME, OGAKI-SHIGIFU 503-0917, (1), Reel and Frame Number: 011046/0152, Ibiden Co., Ltd., Gifu, Japan (JP), Foreign company or corporation (03)

CORE TERMS: layer, resin, conductor, through-hole, substrate, wiring, copper, plating, particle, filler ...

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

6376052

April 23, 2002

Multilayer printed wiring board and its production process,
resin composition for filling through-hole

CERT-CORRECTION: January 21, 2003 - a Certificate of Correction was issued for
this patent (O.G. February 11, 2003)

APPL-NO: 556860 (09)

FILED-DATE: April 21, 2000

GRANTED-DATE: April 23, 2002

CORE TERMS: layer, resin, conductor, through-hole, substrate, wiring, copper,
plating, particle, filler ...

6376052 OR 6,376,052

Your search request has found no ITEMS.

To edit the above request, use the arrow keys. Be sure to move the cursor to the end of the request before you enter it.

To enter a new search request, type it and press the ENTER key.

What you enter will be Search Level 1.

For further explanation, press the H key (for HELP) and then the ENTER key.

6376052 OR 6,376,052

Your search request has found no CASES.

To edit the above request, use the arrow keys. Be sure to move the cursor to the end of the request before you enter it.

To enter a new search request, type it and press the ENTER key.

What you enter will be Search Level 1.

For further explanation, press the H key (for HELP) and then the ENTER key.

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Patent Search 6376052 1/11/2007

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STIC Search Report

EIC 1700

STIC Database Tracking Number: 212612

TO: Cathy Lam
Location: REM 5E81
Art Unit: 1775
January 11, 2007

Case Serial Number: 10/829479

From: Kendra Banks
Location: EIC 1700
REMSEN 4B28
Phone: 571/272-2516
Kendra.Banks@uspto.gov

Search Notes

No Cases Reported

US 6,376,049

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Cathy Lam Examiner #: 69755 Date: 01-11-07
Art Unit: 1775 Phone Number 30 2-1538 Serial Number: 10/829,479
Mail Box and Bldg/Room Location: Rem 5 E 81 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): Motoo ASAI et al.

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Ctr

JAN 11 2007

Earliest Priority Filing Date: 10-12-1998

Pat. & T.M. Office

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please do a litigation search for this case

and USPN 6376049 B1 & USPN 6376052 B1

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Coverage: 77 patenting authorities; start dates vary from 1800 forward
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Citations and FI/F-term classification available for Japanese documents
Last update of file: 2007/01/10 (YYYY/MM/DD) 2007-01/UP (last update)

Search statement 1

Query/Command : US6376049/PN**** SS 1: Results 1**

Search statement 2

Query/Command : PRT FULL NONSTOP LEGALALL

1/1 PLUSPAT - ©QUESTEL-ORBIT - image

PN - US6376049 B1 20020423 [US6376049]
TI - (B1) Multilayer printed wiring board and its manufacturing method, and resin
composition for filling through-hole
PA - (B1) IBIDEN CO LTD (JP)
PA0 - Ibiden Company, Ltd., Gifu [JP]
IN - (B1) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP);
SEGAWA HIROSHI (JP); SHIMADA KENICHI (JP)
AP - US34168999 19990723 [1999US-0341689]

FD - PCT/JP98/04584 19901012 [1998WO-JP04584]
WO99/20090 19990422 [WO9920090]

PR - JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]
JP6706598 19980317 [1998JP-0067065]
WOJP9804584 19981012 [1998WO-JP04584]

IC - (B1) B32B-003/00

ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]

ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]

EC - H05K-003/00R
H05K-003/46C1

ICO - T05K-003/00R
T05K-003/38C2
T05K-003/38C4

PCL - ORIGINAL (O) : 428209000; CROSS-REFERENCE (X) : 174250000
174257000 205126000 427096900 427097200 427097900 427098100
427098800

DT - Corresponding document

CT - US4816323; US5346750; US5766670; US6010768; JP63-66993; JP63-52112;
JP1-100996; JP1-143292; JP2-196494; JP4-27194; JP4-92496; JP4-303937;
JP5-110254; JP5-198909; JP5-67670; JP5-243728; JP6-069648; JP6-76474;
JP6-275959; JP6-283860; JP6-302956; JP6-338218; JP7-162158; JP7-188391;
JP7-283538; JP8-83971; JP9-8424; JP9-116273; JP9-181415; JP10-22611
English language abstract JP 6-275959.

English language abstract JP 6-302956.

English language abstract JP 5-67670.

English language abstract JP 4-303937.

English language abstract JP 63-52112.

English language abstract JP 6-76474.

English language abstract JP 5-198909.

English language abstract JP 7-162158.

English language abstract JP 1-100996.

English language abstract of JP 8-83971.

English Language abstract of JP-6-338218.

English Language abstract of 7-188931.

English Language abstract of-JP-7-283538.

English Language abstract of-JP-9-116273.

English Language abstract of -JP-6-069648.

English Language abstract of-JP-9-130050.

English Language abstract of-JP-6-283860.

English Language abstract of-JP-5-110254.

English language abstract of JP 9-181415.

English language abstract of JP 9-8424.

English language abstract of JP 2-196494.

English language abstract of JP 1-143292.

English language abstract of JP 4-92496.

English language abstract of JP 5-243728.

English Language Abstract of JP 63-66993.

English Language Abstract of JP 4-27194.

English Language Abstract of JP 10-22611.

STG - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001

AB - A multilayer printed wiring board is composed of a substrate provided with through-holes, and a wiring board formed on the substrate through the interposition of an interlaminar insulating resin layer, the through-holes having a roughened internal surface and being filled with a filler, an exposed part of the filler in the through-holes being covered with a through-hole-covering conductor layer, and a viahole formed just thereabove being connected to the through-hole-covering conductor layer. Without peeling between the through-holes and the filler, this wiring board has a satisfactory connection reliability between the through-holes and the internal layer circuit and provides a high density wiring.

UP - 2002-18

1/1 LGST - ©EPO

PN - US6376049 B1 20020423 [US6376049]

AP - US34168999 19990723 [1999US-0341689]

ACT -
20030318 US/CC-A
CERTIFICATE OF CORRECTION

20040928 US/RF-A
REISSUE APPLICATION FILED
EFFECTIVE DATE: 20040422

UP - 2004-41

1/1 CRXX - ©CLAIMS/RRX

PN - 6,376,049 A 20020423 [US6376049]

PA - Ibiden Co Ltd JP

ACT - 20040422 REISSUE REQUESTED
ISSUE DATE OF O.G.: 20040928

REISSUE REQUEST NUMBER: 10/829479

EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 1775

Reissue Patent Number:

Search statement 2

Query/Command : FILE INPADOC

LGST - Time in minutes : 0,01
The cost estimation below is based on Questel's
standard price list

Estimated cost : 0,01 USD
Records displayed and billed : 1
Estimated cost : 0.70 USD
Cost estimated for the last database search : 0.71 USD
Estimated total session cost : 1.86 USD

CRXX - Time in minutes : 0,02
The cost estimation below is based on Questel's
standard price list

Estimated cost : 0.03 USD
Records displayed and billed : 1
Estimated cost : 6.00 USD
Cost estimated for the last database search : 6.03 USD
Estimated total session cost : 7.89 USD

LITA - Time in minutes : 0,02
The cost estimation below is based on Questel's
standard price list

Estimated cost : 0.05 USD
Cost estimated for the last database search : 0.05 USD
Estimated total session cost : 7.94 USD

PLUSPAT - Time in minutes : 0,28
The cost estimation below is based on Questel's
standard price list

Estimated cost : 0.81 USD
Records displayed and billed : 1
Estimated cost : 1.55 USD

Cost estimated for the last database search : 2.36 USD
Estimated total session cost : 10.30 USD

Selected file: PLUSPAT

PLUSPAT - (c) Questel-Orbit, All Rights Reserved.
Comprehensive Worldwide Patents database
Individual records for each Country or Patent Office
Coverage: 77 patenting authorities; start dates vary from 1800 forward
For PlusPat Fact Sheet, Pricing and FAQ, see the Questel.Orbit website
Citations and FI/F-term classification available for Japanese documents
Last update of file: 2007/01/10 (YYYY/MM/DD) 2007-01/UP (last update)

Search statement 2

Query/Command : FAM US6376049/PN

1 Patent Groups

**** SS 2: Results 16**

Search statement 3

Query/Command : FAMSTATE NONSTOP

1/16 PLUSPAT - ©QUESTEL-ORBIT

PN - CN1474642 A 20040211 [CN1474642]
STG - (A) Unexamined application
TI - (A) Multilayer printed circuit board and its producing method,filling resin composition for through hole
PA - (A) SEGAI ELECTRIC CO LTD (JP)
IN - (A) HIROTA NODA (JP); KENICHI SHIMADA (JP); MOTOO ASAI (JP)
IC - (A) H05K-001/14
PN2 - CN1237852 C 20060118 [CN1237852C]
STG2 - (C) Granted patent
TI2 - (C) Multilayer printed circuit board and its producing method, resin composition for filling through hole
PA2 - (C) SEGAI ELECTRIC CO LTD (JP)
IN2 - (C) HIROTA ASAI MOTO SHIMADA KENI (JP)
IC2 - (C) H05K-001/14 H05K-003/00 H05K-003/38 H05K-003/46
AP - CN02148010 19981012 [2002CN-0148010]
PR - JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]
JP6706598 19980317 [1998JP-0067065]
ICAA - H05K-001/14 [2006-01 A F I B H CN]; H05K-003/00 [2006-01 A - I R M EP];

H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-001/14 [2006 C L I B H CN]; H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]
UP - 2005-09

2/16 PLUSPAT - ©QUESTEL-ORBIT

PN - CN1592554 A 20050309 [CN1592554]
STG - (A) Unexamined application
TI - (A) Multilayer printed circuit board and its producing method, filling resin composition for through hole
PA - (A) SEGAI ELECTRIC CO LTD (JP)
IN - (A) NODA HIROTA (JP); ASAI MOTO (JP); SHIMADA KENICHI (JP)
IC - (A) H05K-003/00 H05K-003/46
AP - CN200410057893 19981012 [2004CN-0057893]
PR - JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]
JP6706598 19980317 [1998JP-0067065]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]
UP - 2005-23

3/16 PLUSPAT - ©QUESTEL-ORBIT

PN - CN1272298 A 20001101 [CN1272298]
STG - (A) Unexamined application
TI - (A) Multilayer printed wiring board and its manufacturing method, and resin composition for filling through-hole
PA - (A) IBIDEN CO LTD (JP)
IN - (A) KENICHI SHIMADA (JP); KOUTA NODA (JP); MOTO (ASAI) (JP)
IC - (A) H05K-003/46
PN2 - CN1181717 C 20041222 [CN1181717C]
STG2 - (C) Granted patent
TI2 - (C) Multilayer printed wiring board and its manufacturing method, and resin composition for filling through-hole
PA2 - (C) IBIDEN CO LTD (JP)
IN2 - (C) KENICHI SHIMADA (JP); KOUTA NODA (JP); MOTO (ASAI) (JP)
IC2 - (C) H05K-003/46
AP - CN98809583 19981012 [1998CN-0809583]
PR - JP28049997 19971014 [1997JP-0280499]

JP34018097 19971210 [1997JP-0340180]
 JP34018297 19971210 [1997JP-0340182]
 JP6706598 19980317 [1998JP-0067065]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
 H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
 H05K-003/38 [2006 C - N R M EP]
UP - 2005-08

4/16 *PLUSPAT - ©QUESTEL-ORBIT - image*

PN - EP1030544 A1 20000823 [EP1030544]
STG - (A1) Public. Of applic. With search report
TI - (A1) MULTILAYER PRINTED WIRING BOARD AND ITS
 MANUFACTURING METHOD, AND RESIN COMPOSITION FOR FILLING
 THROUGH-HOLE
OTI - (A1) MEHRSCHEIDIGE GEDRUCKTE LEITERPLATTE, VERFAHREN
 ZU DEREN HERSTELLUNG, UND HARZZUSAMMENSETZUNG ZUM
 FÜLLEN VON KONTAKTLCHERN
 (A1) PLAQUETTE A CIRCUIT IMPRIME MULTICOUCHE, SON PROCEDE
 DE FABRICATION ET COMPOSITION RESINEUSE DE REMPLISSAGE
 DE TROUS TRAVERSANTS
PA - (A1) IBIDEN CO LTD (JP)
IN - (A1) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP);
 SEGAWA HIROSHI (JP); SHIMADA KENICHI (JP)
IC - (A1) H05K-003/46
PN2 - EP1030544 A4 20060308 [EP1030544]
STG2 - (A4) Publ. Of suppl. search report
TI2 - (A4) MULTILAYER PRINTED WIRING BOARD AND ITS
 MANUFACTURING METHOD, AND RESIN COMPOSITION FOR FILLING
 THROUGH-HOLE
OTI2 - (A4) MEHRSCHEIDIGE GEDRUCKTE LEITERPLATTE, VERFAHREN
 ZU DEREN HERSTELLUNG, UND HARZZUSAMMENSETZUNG ZUM
 FÜLLEN VON KONTAKTLCHERN
 (A4) PLAQUETTE A CIRCUIT IMPRIME MULTICOUCHE, SON PROCEDE
 DE FABRICATION ET COMPOSITION RESINEUSE DE REMPLISSAGE
 DE TROUS TRAVERSANTS
PA2 - (A4) IBIDEN CO LTD (JP)
IN2 - (A4) ASAI MOTO (JP); SHIMADA KENICHI (JP); NODA KOUTA (JP);
 KARIYA TAKASHI (JP); SEGAWA HIROSHI (JP)
IC2 - (A4) H05K-003/00 H05K-003/38 H05K-003/46
LA - ENGLISH (ENG)
AP - EP98947819 19981012 [1998EP-0947819]
PR - WOJP9804584 19981012 [1998WO-JP04584]
 JP28049997 19971014 [1997JP-0280499]
 JP34018097 19971210 [1997JP-0340180]

JP34018297 19971210 [1997JP-0340182]
JP6706598 19980317 [1998JP-0067065]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]
EC - H05K-003/00R
H05K-003/46C1
ICO - T05K-003/00R
T05K-003/38C2
T05K-003/38C4
DS - DE FI GB NL
DT - Basic (replaces original non EP official language basic.)
UP - 2000-31

1/1 LEGALI - ©EPO

PN - EP1030544 A1 20000823 [EP1030544]EP1030544 A4 20060308 [EP1030544]
AP - EP98947819 19981012 [1998EP-0947819]
ACTE - 20000823 EP/AK-A [+]
DESIGNATED CONTRACTING STATES:
DE FI GB NL

20000823 EP/17P-A [+]
REQUEST FOR EXAMINATION FILED
EFFECTIVE DATE: 20000511

20060308 EP/A4-A [+]
SUPPLEMENTARY SEARCH REPORT
EFFECTIVE DATE: 20060125

20061108 EP/17Q-A [+]
FIRST EXAMINATION REPORT
EFFECTIVE DATE: 20061010

UP - 2006-45

5/16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - EP1286578 A2 20030226 [EP1286578]
STG - (A2) Pub. Of applic. Without search report
TI - (A2) Multilayer printed wiring board and its manufacturing method, and resin composition for filling through-hole
OTI - (A2) Mehrschichtige gedruckte Leiterplatte und Verfahren zu deren Herstellung, und Harzzusammensetzung zum Füllen von Kontaktlöchern
(A2) Plaque à circuit imprimé multicouche et son procédé de fabrication, et composition résineuse de remplissage de trous traversants
PA - (A2) IBIDEN CO LTD (JP)

PA0 - Ibiden Co., Ltd.; 1, Kandacho 2-chome; Ogaki-shi, Gifu 503-0917 (JP)

IN - (A2) ASAI MOTO (JP); SHIMADA KENICHI (JP); NODA KOUTA (JP); KAYRIYA TAKASHI (JP); SEGAWA HIROSHI (JP)

IC - (A2) H05K-003/46

PN2 - EP1286578 A3 20060322 [EP1286578]

STG2 - (A3) Publi. Of search report

TI2 - (A3) Multilayer printed wiring board and its manufacturing method, and resin composition for filling through-hole

OTI2 - (A3) Mehrschichtige gedruckte Leiterplatte und Verfahren zu deren Herstellung, und Harzzusammensetzung zum Füllen von Kontaktlöchern
(A3) Plaque à circuit imprimé multicouche et son procédé de fabrication, et composition résineuse de remplissage de trous traversants

PA2 - (A3) IBIDEN CO LTD (JP)

IN2 - (A3) ASAI MOTO (JP); SHIMADA KENICHI (JP); NODA KOUTA (JP); KAYRIYA TAKASHI (JP); SEGAWA HIROSHI (JP)

IC2 - (A3) H05K-003/00 H05K-003/38 H05K-003/46

LA - ENGLISH (ENG)

AP - EP02026472 19981012 [2002EP-0026472]

PR - EP98947819 19981012 [1998EP-0947819]
JP6706598 19980317 [1998JP-0067065]
JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]

ICAA - H05K-003/46 [2006-01 A F I B H EP]
H05K-003/00 [2006-01 A - N R M EP]; H05K-003/38 [2006-01 A - N R M EP]

ICCA - H05K-003/46 [2006 C L I B H EP]
H05K-003/00 [2006 C - N R M EP]; H05K-003/38 [2006 C - N R M EP]

EC - H05K-003/00R

DS - DE FI GB NL

DT - Basic

UP - 2003-09

I / I LEGALI - ©EPO

PN - EP1286578 A2 20030226 [EP1286578]EP1286578 A3 20060322 [EP1286578]

AP - EP02026472 19981012 [2002EP-0026472]

ACTE - 20030226 EP/AC-A
DIVISIONAL APPLICATION (ART. 76) OF:
(EP 1030544 [EP1030544])

20030226 EP/AK-A [+]

DESIGNATED CONTRACTING STATES:

DE FI GB NL

20030312 EP/17P-A [+]

REQUEST FOR EXAMINATION FILED

EFFECTIVE DATE: 20030108

20060322 EP/AK-A [+]

DESIGNATED CONTRACTING STATES:
DE FI GB NL

20061129 EP/AKX-A [+]

PAYMENT OF DESIGNATION FEES
DE FI GB NL

UP - 2006-48

6/16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - JP2004200720 A 20040715 [JP2004200720]

STG - (A) Doc. Laid open to publ. Inspec.

TI - (A) MULTILAYER PRINTED BOARD AND METHOD OF
MANUFACTURING THE SAME

PA - (A) IBIDEN CO LTD

PA0 - (A) IBIDEN CO LTD

IN - (A) NODA KOTA; ASAI MOTO; SHIMADA KENICHI

IC - (A) H05K-001/11 H05K-003/40 H05K-003/46

AP - JP2004072926 20040315 [2004JP-0072926]

PR - JP2004072926 20040315 [2004JP-0072926]
JP28049997 19971014 [1997JP-0280499]

ICAA - H05K-001/11 [2006-01 A - I R M EP]; H05K-003/40 [2006-01 A - I R M EP];
H05K-003/46 [2006-01 A - I R M EP]

ICCA - H05K-001/11 [2006 C - I R M EP]; H05K-003/40 [2006 C - I R M EP]; H05K-
003/46 [2006 C - I R M EP]

FI - H05K1/11 H; H05K3/40 D; H05K3/46 N; H05K3/46 B

FTM - 5E317 AA24; 5E317 BB01; 5E317 BB11; 5E317 CD05; 5E317 CD23; 5E317
CC51; 5E317 CC31; 5E317 CD27; 5E317 GG05; 5E317 CD32; 5E346 DD32;
5E346 DD48; 5E346 EE38; 5E346 FF02; 5E346 FF04; 5E346 GG15; 5E346
GG16; 5E346 CC08; 5E346 CC02; 5E346 BB16; 5E346 BB01; 5E346 AA43;
5E346 AA32; 5E346 AA15; 5E346 AA12; 5E346 AA06; 5E346 DD01; 5E346
CC58; 5E346 CC55; 5E346 CC32; 5E346 DD22; 5E346 GG17; 5E346 GG22;
5E346 GG23; 5E346 GG27; 5E346 HH07; 5E346 HH11

UP - 2004-33

7/16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - JP11186728 A 19990709 [JP11186728]

STG - (A) Doc. Laid open to publ. Inspec.

TI - (A) MULTILAYERED PRINTED WIRING BOARD

PA - (A) IBIDEN CO LTD

PA0 - (A) IBIDEN CO LTD

IN - (A) NODA KOTA; ASAI MOTO; SHIMADA KENICHI

IC - (A) H05K-003/38 H05K-003/42 H05K-003/46
AP - JP34018097 19971210 [1997JP-0340180]
PR - JP34018097 19971210 [1997JP-0340180]
 JP28049997 19971014 [1997JP-0280499]
ICAA - H05K-003/38 [2006-01 A - I R M EP]; H05K-003/42 [2006-01 A - I R M EP];
 H05K-003/46 [2006-01 A - I R M EP]
ICCA - H05K-003/38 [2006 C - I R M EP]; H05K-003/42 [2006 C - I R M EP]; H05K-
 003/46 [2006 C - I R M EP]
FI - H05K3/42 610C; H05K3/38 B; H05K3/46 N
FTM - 5E317 AA24; 5E317 BB01; 5E317 BB12; 5E317 CC25; 5E317 CC32; 5E317
 CC33; 5E317 CD05; 5E317 CD27; 5E317 CD32; 5E317 GG03; 5E317 GG14;
 5E343 AA07; 5E343 AA12; 5E343 AA15; 5E343 AA16; 5E343 BB17; 5E343
 BB24; 5E343 BB67; 5E343 BB71; 5E343 CC33; 5E343 CC46; 5E343 CC61;
 5E343 DD33; 5E343 DD43; 5E343 DD76; 5E343 DD80; 5E343 EE17; 5E343
 EE33; 5E343 EE53; 5E343 EE55; 5E343 ER02; 5E343 ER11; 5E343 GG04;
 5E346 AA02; 5E346 AA06; 5E346 AA12; 5E346 AA15; 5E346 AA16; 5E346
 AA43; 5E346 BB01; 5E346 CC04; 5E346 CC08; 5E346 CC16; 5E346 CC41;
 5E346 CC43; 5E346 CC51; 5E346 CC57; 5E346 CC60; 5E346 DD02; 5E346
 DD03; 5E346 DD25; 5E346 DD32; 5E346 DD47; 5E346 DD48; 5E346 EE33;
 5E346 EE38; 5E346 FF04; 5E346 FF18; 5E346 GG15; 5E346 GG17; 5E346
 GG19; 5E346 GG22; 5E346 GG23; 5E346 GG27; 5E346 GG28; 5E346 HH07;
 5E346 HH11; 5E346 HH25

8/16 *PLUSPAT - ©QUESTEL-ORBIT - image*

PN - JP11186729 A 19990709 [JP11186729]
STG - (A) Doc. Laid open to publ. Inspec.
TI - (A) MULTILAYERED PRINTED WIRING BOARD
PA - (A) IBIDEN CO LTD
PA0 - (A) IBIDEN CO LTD
IN - (A) NODA KOTA; ASAII MOTO; SHIMADA KENICHI
IC - (A) H05K-003/38 H05K-003/42 H05K-003/46
AP - JP34018197 19971210 [1997JP-0340181]
PR - JP34018197 19971210 [1997JP-0340181]
 JP28049997 19971014 [1997JP-0280499]
ICAA - H05K-003/38 [2006-01 A - I R M EP]; H05K-003/42 [2006-01 A - I R M EP];
 H05K-003/46 [2006-01 A - I R M EP]
ICCA - H05K-003/38 [2006 C - I R M EP]; H05K-003/42 [2006 C - I R M EP]; H05K-
 003/46 [2006 C - I R M EP]
FI - H05K3/42 610C; H05K3/38 B; H05K3/46 N; H05K3/46 T
FTM - 5E317 AA24; 5E317 BB01; 5E317 BB12; 5E317 CC25; 5E317 CC32; 5E317
 CC33; 5E317 CD17; 5E317 CD27; 5E317 CD32; 5E317 GG03; 5E317 GG14;
 5E343 AA02; 5E343 AA07; 5E343 AA12; 5E343 AA22; 5E343 BB24; 5E343
 BB67; 5E343 BB71; 5E343 CC33; 5E343 CC46; 5E343 CC61; 5E343 CC73;
 5E343 CC76; 5E343 DD33; 5E343 DD43; 5E343 DD76; 5E343 DD80; 5E343
 EE53; 5E343 ER02; 5E343 GG04; 5E346 AA02; 5E346 AA06; 5E346 AA12;

5E346 AA15; 5E346 AA43; 5E346 BB01; 5E346 CC04; 5E346 CC08; 5E346 CC09; 5E346 CC16; 5E346 CC32; 5E346 CC51; 5E346 CC60; 5E346 DD25; 5E346 DD32; 5E346 DD33; 5E346 DD47; 5E346 DD48; 5E346 EE33; 5E346 EE38; 5E346 FF04; 5E346 FF15; 5E346 GG15; 5E346 GG17; 5E346 GG19; 5E346 GG22; 5E346 GG23; 5E346 GG27; 5E346 GG28; 5E346 HH07; 5E346 HH11; 5E346 HH25

9/16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - JP11186730 A 19990709 [JP11186730]
STG - (A) Doc. Laid open to publ. Inspec.
TI - (A) MULTILAYERED PRINTED WIRING BOARD AND MANUFACTURE THEREOF
PA - (A) IBIDEN CO LTD
PA0 - (A) IBIDEN CO LTD
IN - (A) NODA KOTA; ASAI MOTO; SHIMADA KENICHI
IC - (A) H05K-003/38 H05K-003/42 H05K-003/46
PN2 - JP3564981 B2 20040915 [JP3564981]
STG2 - (B2) Grant. Pat. With A from 2500000 on
IC2 - (B2) H05K-003/38 H05K-003/42 H05K-003/46
AP - JP34018297 19971210 [1997JP-0340182]
PR - JP34018297 19971210 [1997JP-0340182]
JP28049997 19971014 [1997JP-0280499]
ICAA - H05K-003/38 [2006-01 A - I R M EP]; H05K-003/42 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
ICCA - H05K-003/38 [2006 C - I R M EP]; H05K-003/42 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
FI - H05K3/42 610C; H05K3/38 B; H05K3/46 N
FTM - 5E317 AA24; 5E317 BB02; 5E317 BB03; 5E317 BB05; 5E317 BB12; 5E317 BB22; 5E317 CC22; 5E317 CC25; 5E317 CC32; 5E317 CC33; 5E317 CC53; 5E317 CD05; 5E317 CD12; 5E317 CD15; 5E317 CD18; 5E317 CD25; 5E317 CD32; 5E317 GG05; 5E317 GG14; 5E317 GG20; 5E343 AA02; 5E343 AA15; 5E343 AA17; 5E343 AA18; 5E343 AA19; 5E343 AA22; 5E343 BB24; 5E343 CC25; 5E343 CC34; 5E343 CC45; 5E343 CC52; 5E343 CC62; 5E343 CC67; 5E343 CC72; 5E343 DD03; 5E343 DD44; 5E343 EE33; 5E343 EE39; 5E343 EE52; 5E343 ER07; 5E343 FF23; 5E343 FF30; 5E343 GG04; 5E343 GG08; 5E343 GG20; 5E346 AA02; 5E346 AA03; 5E346 AA04; 5E346 AA12; 5E346 AA15; 5E346 AA26; 5E346 AA35; 5E346 AA43; 5E346 AA53; 5E346 CC04; 5E346 CC06; 5E346 CC09; 5E346 CC10; 5E346 CC14; 5E346 CC32; 5E346 CC54; 5E346 CC55; 5E346 DD03; 5E346 DD25; 5E346 DD33; 5E346 EE32; 5E346 FF04; 5E346 FF07; 5E346 FF15; 5E346 GG06; 5E346 GG22; 5E346 GG23; 5E346 GG27; 5E346 HH18; 5E346 HH26; 5E346 HH40

10/16 PLUSPAT - ©QUESTEL-ORBIT

PN - JP11266078 A 19990928 [JP11266078]
STG - (A) Doc. Laid open to publ. Inspec.

TI - (A) THROUGH-HOLE FILLING RESIN COMPOSITION AND
 MULTILAYER PRINTED WIRING BOARD
PA - (A) IBIDEN CO LTD
PA0 - (A) IBIDEN CO LTD
IN - (A) ASAI MOTO; SHIMADA KENICHI
IC - (A) H05K-003/42 H05K-003/46
PN2 - JP3408417 B2 20030519 [JP3408417]
STG2 - (B2) Grant. Pat. With A from 2500000 on
IC2 - (B2) H05K-003/42 H05K-003/46
AP - JP6706598 19980317 [1998JP-0067065]
PR - JP6706598 19980317 [1998JP-0067065]
ICAA - H05K-003/42 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
ICCA - H05K-003/42 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
FI - H05K3/42 610C; H05K3/46 N; H05K3/46 S; H05K3/46 B
FTM - 5E317 AA24; 5E317 CC25; 5E346 AA43; 5E346 EE31; 5E346 FF18

11 / 16 PLUSPAT - ©QUESTEL-ORBIT

PN - TW249979 B 20060221 [TW-249979]
STG - (B) Patent
TI - (B) Multilayer printed wiring board and its production process, resin
 composition for filling through-hole
PA - (B) IBIDEN CO LTD (JP)
IN - (B) ASAI MOTO (JP); SHIMADA KENICHI (JP); NODA KOUTA (JP);
 KARIYA TAKASHI (JP); SEGAWA HIROSHI (JP)
IC - (B) H05K-003/00 H05K-003/38 H05K-003/46
AP - TW91124369 19981014 [2002TW-0124369]
PR - JP6706598 19980317 [1998JP-0067065]
 JP28049997 19971014 [1997JP-0280499]
 JP34018097 19971210 [1997JP-0340180]
 JP34018297 19971210 [1997JP-0340182]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
 H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
 H05K-003/38 [2006 C - N R M EP]
EC - H05K-003/00R
 H05K-003/46C1
ICO - T05K-003/00R
 T05K-003/38C2
 T05K-003/38C4
 T05K-003/38C6
UP - 2006-47

12 / 16 PLUSPAT - ©QUESTEL-ORBIT

PN - TW443084 B 20010623 [TW-443084]
STG - (B) Patent
TI - (B) Multi-layer printed circuit board and its fabricating method, composition material of resin used for filling through hole
PA - (B) IBIDEN CO LTD (JP)
IN - (B) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP); SEGAWA HIROSHI (JP); SHIMADA KENICHI (JP)
IC - (B) H05K-003/46
AP - TW89114870 19981014 [2000TW-0114870]
PR - JP6706598 19980317 [1998JP-0067065]
 JP28049997 19971014 [1997JP-0280499]
 JP34018097 19971210 [1997JP-0340180]
 JP34018297 19971210 [1997JP-0340182]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
 H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
 H05K-003/38 [2006 C - N R M EP]
UP - 2002-03

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PN - TW443084 B 20010623 [TW-443084]
AP - TW89114870 19981014 [2000TW-0114870]
ACTE - 20011012 TW/GD4A-A [+]
 ISSUE OF PATENT CERTIFICATE FOR GRANTED INVENTION PATENT
UP - 2004-28

13/16 PLUSPAT - ©QUESTEL-ORBIT

PN - TW520629 B 20030211 [TW-520629]
STG - (B) Patent
TI - (B) Multi-layer printed circuit board and its manufacturing method, and resin composition for filling through-hole
PA - (B) IBIDEN CO LTD (JP)
IN - (B) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP); SEGAWA HIROSHI (JP); SHIMADA KENICHI (JP)
IC - (B) H05K-003/46
AP - TW87117076 19981014 [1998TW-0117076]
PR - JP28049997 19971014 [1997JP-0280499]
 JP34018097 19971210 [1997JP-0340180]
 JP34018297 19971210 [1997JP-0340182]
 JP6706598 19980317 [1998JP-0067065]
ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
 H05K-003/38 [2006-01 A - N R M EP]
ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]

H05K-003/38 [2006 C - N R M EP]

UP - 2003-40

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PN - TW520629 B 20030211 [TW-520629]

AP - TW87117076 19981014 [1998TW-0117076]

ACTE - 20030609 TW/GD4A-A [+]

ISSUE OF PATENT CERTIFICATE FOR GRANTED INVENTION PATENT

UP - 2004-28

14/16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - US6376049 B1 20020423 [US6376049]

STG - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001

TI - (B1) Multilayer printed wiring board and its manufacturing method, and resin composition for filling through-hole

PA - (B1) IBIDEN CO LTD (JP)

PA0 - Ibiden Company, Ltd., Gifu [JP]

IN - (B1) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP); SEGAWA HIROSHI (JP); SHIMADA KENICHI (JP)

IC - (B1) B32B-003/00

AP - US34168999 19990723 [1999US-0341689]

PR - JP28049997 19971014 [1997JP-0280499]

JP34018097 19971210 [1997JP-0340180]

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WOJP9804584 19981012 [1998WO-JP04584]

ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]

ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]

EC - H05K-003/00R

H05K-003/46C1

ICO - T05K-003/00R

T05K-003/38C2

T05K-003/38C4

PCL - ORIGINAL (O) : 428209000; CROSS-REFERENCE (X) : 174250000
174257000 205126000 427096900 427097200 427097900 427098100
427098800

DT - Corresponding document

UP - 2002-18

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PN - US6376049 B1 20020423 [US6376049]

AP - US34168999 19990723 [1999US-0341689]

ACTE - 20030318 US/CC-A

CERTIFICATE OF CORRECTION

20040928 US/RF-A

REISSUE APPLICATION FILED

EFFECTIVE DATE: 20040422

UP - 2004-41

15/16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - US6376052 B1 20020423 [US6376052]

STG - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001

TI - (B1) Multilayer printed wiring board and its production process, resin composition for filling through-hole

PA - (B1) IBIDEN CO LTD (JP)

PA0 - Ibiden Company, Ltd., Gifu [JP]

IN - (B1) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP); SEGAWA HIROSHI (JP); SHIMADA KEN-ICHI (JP)

IC - (B1) B32B-003/00

AP - US55686000 20000421 [2000US-0556860]

PR - JP28049997 19971014 [1997JP-0280499]

JP34018097 19971210 [1997JP-0340180]

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JP6706598 19980317 [1998JP-0067065]

ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
H05K-003/38 [2006-01 A - N R M EP]

ICCA - H05K-003/00 [2006 C - I R M EP]; H05K-003/46 [2006 C - I R M EP]
H05K-003/38 [2006 C - N R M EP]

EC - H05K-003/00R

H05K-003/46C1

ICO - T05K-003/00R

T05K-003/38C2

T05K-003/38C4

PCL - ORIGINAL (O) : 428209000; CROSS-REFERENCE (X) : 174255000
428901000

DT - Corresponding document

UP - 2002-18

1/1 LEGALI - ©EPO

PN - US6376052 B1 20020423 [US6376052]

AP - US55686000 20000421 [2000US-0556860]

ACTE - 20000814 US/AS-A

ASSIGNMENT

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EFFECTIVE DATE: 20000717
ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:ASAI,
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OTHERS;REEL/FRAME:011046/0152

20030121 US/CC-A
CERTIFICATE OF CORRECTION

UP - 2004-30

16/16 PLUSPAT - ©QUESTEL-ORBIT - image

PN - WO9920090 A1 19990422 [WO9920090]
STG - (A1) Publ. Of int. Appl. With int. Search rep
TI - (A1) MULTILAYER PRINTED WIRING BOARD AND ITS
MANUFACTURING METHOD, AND RESIN COMPOSITION FOR FILLING
THROUGH-HOLE
OTI - (A1) PLAQUETTE A CIRCUIT IMPRIME MULTICOUCHE, SON PROCEDE
DE FABRICATION ET COMPOSITION RESINEUSE DE REMPLISSAGE
DE TROUS TRAVERSANTS
PA - (A1) IBIDEN CO LTD (JP); ASAI MOTO (JP); KARIYA TAKASHI (JP);
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PA0 - IBIDEN CO., LTD. ; 1, Kanda-cho 2-chome Ogaki-shi Gifu 503-0917 (JP)
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SEGAWA, Hiroshi ; I Biden Co., Ltd. 1-1, Kitakata Ibigawa-cho Ibi-gun Gifu
501-0601 (JP) (only US)
IN - (A1) ASAI MOTO (JP); KARIYA TAKASHI (JP); NODA KOUTA (JP);
SEGAWA HIROSHI (JP); SHIMADA KENICHI (JP)
IC - (A1) H05K-003/46
LA - JAPANESE (JPN)
AP - WOJP9804584 19981012 [1998WO-JP04584]
PR - JP28049997 19971014 [1997JP-0280499]
JP34018097 19971210 [1997JP-0340180]
JP34018297 19971210 [1997JP-0340182]
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ICAA - H05K-003/00 [2006-01 A - I R M EP]; H05K-003/46 [2006-01 A - I R M EP]
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H05K-003/38 [2006 C - N R M EP]
EC - H05K-003/00R

ICO - T05K-003/00R
T05K-003/38C2

DS - CN; KR; SG; US; European Patent (AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE)

DT - Basic

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PN - WO9920090 A1 19990422 [WO9920090]
AP - WOJP9804584 19981012 [1998WO-JP04584]

ACTE - 19990422 WO/AK [+]
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SEARCH REPORT
CN KR SG US

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DESIGNATED COUNTRIES FOR REGIONAL PATENTS CITED IN A
PUBLISHED APPLICATION WITH SEARCH REPORT
AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

19990520 WO/DFPE
REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO
EXPIRATION OF 19TH MONTH FROM PRIORITY DATE

19990623 WO/121
EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS
DESIGNATED IN THIS APPLICATION

19990723 WO/ENP
ENTRY INTO THE NATIONAL PHASE IN:
US 1999 341689A 19990723 [1999US-0341689]

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ENTRY INTO THE NATIONAL PHASE IN:
KR 2000 2000703594A [2000KR-0703594]

UP - 2003-22

Search statement 3

PATNO IS 6376049

DATE: JANUARY 11, 2007
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FILE: ALL

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PATNO IS 6376049

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To MODIFY your search request, press the M key (for MODFY) and then the ENTER key.

For further explanation, press the H key (for HELP) and then the ENTER key.

LEVEL 1 - 1 PATENT

1. 6376049 , April 23, 2002 , Multilayer printed wiring board and its manufacturing method, and resin composition for filling through-hole, Asai, Motoo - Ibi-gun, Japan (JP); Shimada, Kenichi - Ibi-gun, Japan (JP); Noda, Kouta - Ibi-gun, Japan (JP); Kariya, Takashi - Ibi-gun, Japan (JP); Segawa, Hiroshi - Ibi-gun, Japan (JP), 341689 (09), July 23, 1999 - ASSIGNMENT OF ASSIGNSORS INTEREST (SEE DOCUMENT FOR DETAILS) ., IBIDEN CO., LTD. 1, KANDA-CHO 2-CHOME OGAKI-SHI, GIFU 503-0917, (1), Reel and Frame Number: 010176/0334, Ibiden Co., Ltd., Gifu, Japan (JP), Foreign company or corporation (03)

CORE TERMS: layer, resin, conductor, through-hole, substrate, filler, particle, wiring, copper, plating ...

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

6376049

April 23, 2002

Multilayer printed wiring board and its manufacturing
method, and resin composition for filling through-hole

REISSUE: April 22, 2004 - Reissue Application filed Ex. Gp.: 1775; Re. S.N.
10/829,479 (O.G. September 28, 2004)

CERT-CORRECTION: March 18, 2003 - a Certificate of Correction was issued for
this patent (O.G. April 8, 2003)

APPL-NO: 341689 (09)

FILED-DATE: July 23, 1999

GRANTED-DATE: April 23, 2002

CORE TERMS: layer, resin, conductor, through-hole, substrate, filler, particle,
wiring, copper, plating ...

6376049 OR 6,376,049

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6376049 OR 6,376,049

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